IN THE CLAIMS

This listing of claims replaces all prior versions, and listings, in this application.

1. (previously presented) A human antibody or antibody fragment, which antibody or fragment:

(i) binds to a polypeptide having the amino acid sequence shown in SEQ ID NO: 1 of the C-terminal domain of Apolipoprotein E (ApoE-CTD) or the amino acid sequence of a part thereof; and

(ii) (a) binds to human plaques;

(b) comprises a heavy chain CDR3 region comprising the sequence shown in SEQ ID NO: 512, SEQ ID NO: 513, SEQ ID NO: 514, SEQ ID NO: 515, SEQ ID NO: 516 or SEQ ID NO: 517;

(c) comprises a heavy chain CDR3 region comprising an amino acid sequence selected from the sequences shown in SEQ ID NO: 29, SEQ ID NO: 47, SEQ ID NO: 50, SEQ ID NO: 53, SEQ ID NO: 56, SEQ ID NO: 59, SEQ ID NO: 62, SEQ ID NO: 65, SEQ ID NO: 68, SEQ ID NO: 71, SEQ ID NO: 74, SEQ ID NO: 77, SEQ ID NO: 80, SEQ ID NO: 83, SEQ ID NO: 86 and SEQ ID NO: 89; and/or

(d) binds to said polypeptide in the presence of very low density lipoprotein (VLDL).

2. (previously presented) An antibody or antibody fragment according to claim 1, which binds to human plaques and comprises a heavy chain CDR3 region comprising the sequence shown in SEQ ID NO: 512, SEQ ID NO: 513, SEQ ID NO: 514, SEQ ID NO: 515, SEQ ID NO: 516 or SEQ ID NO: 517.

3. (previously presented) An antibody or antibody fragment according to claim 1, which comprises a heavy chain CDR3 region comprising the sequence shown in SEQ ID NO: 20.

4. (original) An antibody or antibody fragment according to claim 3 wherein said CDR3 region comprises the sequence shown in SEQ ID NO: 23 or SEQ ID NO: 26.

5. (previously presented) An antibody or antibody fragment according to claim 1 wherein said CDR3 region comprises the sequence shown in SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 210, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322, SEQ ID NO: 323, SEQ ID NO: 373, SEQ ID NO: 374, SEQ ID NO: 375, SEQ ID NO: 376, SEQ ID NO: 485, SEQ ID NO: 486, SEQ ID NO: 487, SEQ ID NO: 488 or SEQ ID NO: 489.

6. (original) An antibody or antibody fragment according to claim 5, wherein said CDR3 region comprises the sequence shown in SEQ ID NO: 207, SEQ ID NO: 208, SEQ ID NO: 209, SEQ ID NO: 320, SEQ ID NO: 321, SEQ ID NO: 322 or SEQ ID NO: 373.

7. (previously presented) An antibody or antibody fragment according to claim 1, which binds to human plaques and comprises a heavy chain CDR3 region comprising an amino acid sequence selected from the sequences shown in SEQ ID NO: 29, SEQ ID NO: 47, SEQ ID NO: 50, SEQ ID NO: 53, SEQ ID NO: 56, SEQ ID NO: 59, SEQ ID NO: 62, SEQ ID NO: 65, SEQ ID NO: 68, SEQ ID NO: 71, SEQ ID NO: 74, SEQ ID NO: 77, SEQ ID NO: 80, SEQ ID NO: 83, SEQ ID NO: 86 and SEQ ID NO: 89.

8. (original) An antibody or antibody fragment according to claim 7, wherein said CDR3 region comprises SEQ ID NO: 50, SEQ ID NO: 68; SEQ ID NO: 74 or SEQ ID NO: 80.

9. (previously presented) An antibody or antibody fragment according to claim 1, wherein said polypeptide having the amino acid sequence of a part of SEQ ID NO: 1 comprises the sequence shown in SEQ ID NO: 2, SEQ ID NO: 5, SEQ ID NO: 7, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16, ~~or~~ SEQ ID NO: 17, SEQ ID NO: 18 or SEQ ID NO: 19.

Claim 10 (canceled)

11. (previously presented) An antibody or antibody fragment according to claim 1, which binds to said polypeptide having the amino acid sequence shown in SEQ ID NO: 1.

Claims 12-19 (canceled)

20. (previously presented) An antibody or antibody fragment according to claim 1, wherein said ApoE-CTD polypeptide is a recombinant polypeptide.

21. (previously presented) An antibody or antibody fragment according to claim 20, wherein said recombinant polypeptide is biotinylated.

Claims 22-27 (canceled)

28. (previously presented) An antibody or antibody fragment according to claim 1, which binds to said plaques in the presence of VLDL.

29. (previously presented) An antibody or antibody fragment according to claim 1, wherein said VLDL is present in human plasma.

30. (original) An antibody or antibody fragment according to claim 29, which binds to the plaques in the presence of 25% plasma.

31. (original) An antibody or antibody fragment according to claim 30, which binds to the plagues in the presence of from 25% to 50% plasma.

32. (original) An antibody or antibody fragment according to claim 31, which binds to the plaques in the presence of 50% plasma.

33. (previously presented) An antibody or antibody fragment which comprises:

(a) the heavy chain sequence shown in SEQ ID NO: 136 and the light chain sequence shown in SEQ ID NOS: 521 and 522;

(b) the heavy chain sequence shown in SEQ ID NO: 142 and the light chain sequence shown in SEQ ID NO: 523;

(c) the heavy chain sequence shown in SEQ ID NO: 40 and the light chain sequence shown in SEQ ID NO: 517 and/or 518; or

(d) the heavy chain sequence shown in SEQ ID NO: 40 and the light chain sequence shown in SEQ ID NO: 519 and/or 520.

Claims 34-36 (canceled)

37. (original) An antibody or antibody fragment which comprises the heavy chain CDR1 sequence shown in SEQ ID NO: 24, the heavy chain CDR2 sequence shown in SEQ ID NO: 25 and the heavy chain CDR3 sequence shown in any one of SEQ ID NOS: 207, 209 and 210.

38. (original) An antibody or antibody fragment according to claim 37, which comprises the light chain CDR1, CDR2 and CDR3 sequences shown in SEQ ID NOS: 33, 34 and 35, SEQ ID NOS: 219, 247 and 269, SEQ ID NOS: 226, 252 and 275 or SEQ ID NOS: 218, 34 and 268.

39. (original) An antibody or antibody fragment according to claim 38, wherein the heavy chain comprises the sequence shown in SEQ ID NO: 210 and the light chain comprises the sequences shown in SEQ ID NOS: 33, 34 and 35, the heavy chain comprises the sequence shown in SEQ ID NO: 209 and the light chain comprises the sequences shown in SEQ ID NOS: 219, 247 and 269 or SEQ ID NOS: 218, 34 and 268, or the heavy chain comprises the sequence shown in SEQ ID NO: 207 and the light chain comprises the sequence shown in SEQ ID NOS: 226, 252 and 275.

40. (previously presented) An antibody or antibody fragment according to claim 37, wherein the heavy chain comprises the sequence shown in any one of SEQ ID NO: 317, 318 or 319.

41. (previously presented) An antibody or antibody fragment according to claim 38, wherein the light chain comprises the sequence shown in SEQ ID NO: 43, 295, 294 or 304.

42. (original) An antibody or antibody fragment which comprises the heavy chain CDR1 sequence shown in SEQ ID NO: 48, the heavy chain CDR2 sequence shown in SEQ ID NO: 49 and the heavy chain CDR3 sequence shown in any one of SEQ ID NOS: 320, 322 and 323.

43. (original) An antibody or antibody fragment according to claim 42, which comprises the light chain CDR1, CDR2 and CDR3 sequences shown in SEQ ID NOS: 326, 334 and 341, SEQ ID NOS: 93, 333 and 341 or SEQ ID NOS: 325 and 333.

44. (original) An antibody or antibody fragment according to claim 43, wherein the heavy chain comprises the sequence shown in SEQ ID NO: 320 and the light chain comprises the sequences shown in SEQ ID NOS: 93, 333 and 341 or SEQ ID NOS: 325, 333 and 341, the heavy chain comprises the sequence shown in SEQ ID NO: 322 and the light chain comprises the sequences shown in SEQ ID NOS: 326, 334 and 341, SEQ ID NOS: 93, 333 and 341 or SEQ ID NOS: 325, 333 and 341, or the heavy chain comprises the sequence shown in SEQ ID NO: 323 and the light chain comprises the sequence shown in SEQ ID NOS: 93, 333 and 341.

45. (previously presented) An antibody or antibody fragment according to claim 42, wherein the heavy chain sequence comprises the sequence shown in SEQ ID NO: 369, 370, 371 or 372.

46. (previously presented) An antibody or antibody fragment according to claim 43, wherein the light chain comprises the sequence shown in SEQ ID NO: 347, 348, 357 or 362.

47. (original) An antibody or antibody fragment which comprises the heavy chain CDR1 sequence shown in SEQ ID NO: 66, the heavy chain CDR2 sequence shown in SEQ ID NO: 67 and the heavy chain CDR3 sequence shown in SEQ ID NO: 373.

48. (original) An antibody or antibody fragment according to claim 47, which comprises the light chain CDR1, CDR2 and CDR3 sequences shown in SEQ ID NOS: 391, 382 and 378 or SEQ ID NOS: 394, 386 and 378.

49. (previously presented) An antibody or antibody fragment according to claim 47, wherein the heavy chain comprises the sequence shown in SEQ ID NO: 397.

50. (previously presented) An antibody or antibody fragment according to claim 48 wherein the light chain sequence shown in SEQ ID NO: 406 or 418.

51. (previously presented) An antibody or antibody fragment according to claim 1, wherein said antibody is an IgG.

52. (previously presented) An antibody or antibody fragment according to claim 1, wherein said antibody fragment is a Fab fragment or scFv.

53. (previously presented) An antibody or antibody fragment according to claim 1, which is a monoclonal antibody.

54. (previously presented) An antibody or antibody fragment according to claim 1, which is a humanised antibody.

55. (previously presented) An antibody or antibody fragment according to claim 1, which is chimeric.

Claims 56-58 (canceled)

59. (previously presented) A pharmaceutical composition comprising an antibody or antibody fragment according to claim 1 and a pharmaceutically acceptable carrier or diluent.

60. (previously presented) A method of treating a subject suffering from an amyloid disorder comprising administering to said subject a therapeutically effective amount of an antibody or antibody fragment according to claim 1.

61. (previously presented) A method of diagnosing an amyloid disorder in a subject comprising:
(i) administering to said subject an antibody or antibody fragment according to claim 1; and
(ii) determining whether or not said antibody or antibody fragment binds to plaques in said subject, wherein binding of said antibody or antibody fragment to plaques is indicative of an amyloid disorder,
thereby determining whether the subject has an amyloid disorder.

62. (original) A method according to claim 61 wherein said antibody or antibody fragment is labelled.

63. (previously presented) A method according to claim 60 wherein the amyloid disorder is selected from Alzheimer's disease, primary systemic amyloidosis, secondary systemic amyloidosis, senile systemic amyloidosis, familial amyloid polyneuropathy I, familial amyloid polyneuropathy III, familial non-neuropathic amyloidosis, hereditary cerebral amyloid angiopathy, Familial British Dementia (FBD), Haemodialysis-related

amyloidosis, Familial amyloidosis (Finnish type), Familial subepithelial corneal amyloid, Type II diabetes, Hereditary renal amyloidosis, Pituitary-gland amyloidosis, injection localized amyloidosis, Medullary carcinoma of the thyroid, Atrial amyloidosis, Familial Danish Dementia (FDD), Downs syndrome, Spongiform encephalopathies, Sporadic Creutzfeldt-Jakob disease, Familial Creutzfeldt-Jakob disease, Iatropic prion disorders, Variant Creutzfeldt-Jakob disease, Gerstmann-Sträussler-Scheinker Disease (GSS), Kuru, Parkinson's disease, Huntington's disease, Familial amyotrophic lateral sclerosis (ALS) and Chronic obstructive pulmonary disease.

64. (previously presented) A polynucleotide encoding an antibody or antibody fragment according to claim 1.

65. (original) A vector comprising a polynucleotide according to claim 64.

66. (previously presented) A host cell expressing a polypeptide according to claim 1.

67. (original) A virus encoding a polynucleotide according to claim 64.

68. (previously presented) A kit for detecting ApoE-CTD, which kit comprises an antibody or antibody fragment according to claim 1 and means for detecting said an antibody or antibody fragment.

69. (previously presented) A method for detecting the presence of ApoE-CTD in a sample from a subject, which method comprises:

(i) contacting a sample taken from a subject with an antibody or antibody fragment according to claim 1 under conditions that permit binding of the an antibody or antibody fragment to ApoE-CTD; and

(ii) determining whether or not the an antibody or antibody fragment binds to the sample thereby detecting any ApoE-CTD present in the sample.